

CLAIMS

1. A stationary welding device for the longitudinal welding of profiles, comprising transport elements (31, 32, 34, 4, 8, 9) for transport of a profile (2, 5, 13) through a welding device (1), the transport elements (31, 32, 34, 4, 8, 9) being fashioned such that movement of the profile can be braked at selectable intervals from a constant production speed down to stoppage of the profile (13), and can subsequently be accelerated back to the production speed, and at least one welding head (14, 15) that produces a weld point (20, 21) in order to manufacture a weld seam (22, 23) on the profile (13) running through the welding device (1), application of welding energy to the profile (13) being switched off below a threshold transport movement speed of the profile (13), the welding head (14, 15) being arranged so that a location of the weld point (20, 21) can be moved along a direction of transport (12) of the profile (13), and a control system for the welding head (14, 15), controls the location of the weld point (20, 21) so that it is moved in the direction of transport (12), beginning from an initial point, each time the profile (13) is at a standstill, the weld point (20, 21) being moved back to the initial position, against the direction of transport (12), after the restarting of the transport movement and exceeding of a threshold transport speed.

2. The stationary welding device as recited in Claim 1, wherein the welding head (14, 15) is pivotable in order to move the weld point (20, 21).

3. The stationary welding device as recited in Claim 1, wherein the welding head (14, 15) is moveable along the direction of transport (12) of the profile (13) in order to move the weld point (20, 21).

4. The stationary welding device as recited in Claim 1, wherein the control system for the welding head (14, 15) controls the welding head so that each

time the profile (13) is at a standstill, the location of the weld point (20, 21) is moved in the direction of transport (12) a sufficient distance so that after restarting of the transport movement, and upon exceeding of the threshold transport speed, the weld point (20, 21) continues the weld seam (22, 23) that was interrupted by the switching off of the application of welding energy.

5. The stationary welding device as recited in Claim 4, wherein the control system for the welding head (14, 15) controls movement back of the weld point (20, 21) to take place during the restarting of the transport movement, and is adapted to the acceleration of the profile (13) in such a way that a relative speed of the weld point (20, 21) and the profile (13) corresponds approximately to a production speed.

6. The stationary welding device as recited in Claim 1, wherein the welding head (14, 15) comprises a laser welding head.

7. The stationary welding device as recited in Claim 6, wherein the laser welding head is provided with a pivotable mirror (18, 19).

8. The stationary welding device as recited in Claim 1, wherein a momentary quantity of welding energy brought into the profile (13) can be regulated in a manner dependent on a momentary transport speed of the profile (13).

9. A method for longitudinal welding of profiles, in which a profile that is to be provided with a weld seam is guided through a welding device, a weld point being produced on the profile in the welding device in order to manufacture a weld seam, the profile movement being braked at selectable intervals from a production speed down to

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a stoppage of the profile, and being subsequently accelerated back to the production speed, and the application of welding energy to the profile being switched off below the threshold transport speed, comprising:

moving the location of the weld each time the profile is at a standstill, beginning from an initial point, in a direction of transport of the profile, and
moving the weld point back to the initial position, against the direction of transport, after restarting of the transport movement and exceeding a threshold transport speed.

10. The method as recited in Claim 9, wherein
the location of the weld point during each stoppage of the profile is moved in the direction of transport far enough that after the restarting of the transport movement, upon the exceeding of the threshold transport speed, the weld point continues the weld seam that was interrupted by switching off of the application of the weld energy.

11. The method as recited in Claim 9, characterized in that
the movement back of the weld point takes place during the restarting of the transport movement, and is adapted to an acceleration of the profile in such a way that a relative speed of the weld point and the profile corresponds approximately to a production speed.

12. The method as recited in Claim 9, wherein
a laser beam is used for the welding.